

City and County of the City of Exeter.



ANNUAL REPORT

FOR 1898,

OF THE

VITAL STATISTICS,

SANITARY WORK, &c.,

BY

JOHN WOODMAN, M.D., F.R.C.S.,
Fellow Royal Institute of Public Health,
Fellow Incorporated Society of Medical Officers of Health.

Medical Officer of Health.

EXETER :

Printed by BURRIDGE & CANNICOTT, Musgrave Alley, High Street.

1898.



I have the honour to present to the
Right Worshipful the Mayor, Aldermen,
and Council of the City of Exeter, my
Annual Report for the Year 1898.

JOHN WOODMAN.

March, 1899.



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Annual Report.



GENERAL OBSERVATIONS.

In submitting my Annual Report for 1898, the difficulty expressed last year of estimating the population is even still more felt, for the reason that another year is added since the last census, and I would again hope that in the future the census may be more frequently taken. Taking into consideration the facts that 561 houses have been built since 1891, and the number of voids, I think I am not overestimating the population of Exeter at 38,000.

General Observations.

VITAL STATISTICS.

The total number of Births registered in Exeter in 1898 was 868, equal to a Birth-rate of 22.84 per 1,000, being 6.56 below that of England and Wales.

Birth Rate.

The Registrar-General, in his summary for 1898, gives the Birth-rate for England and Wales as 29·4 per 1,000 of the population, which is the lowest on record.

Birth Rate. The low Birth-rate, which is again less than last year, should be noted, as this means a small proportion of young adults, and a large proportion of adults, and old people, and is therefore unfavourable to a low Death-rate. This is shown by the fact that one-third of the deaths for this year were those of persons over 60 years of age.

The total number of Deaths in Exeter for the year was 647, equal to a corrected Death-rate of 15·66 per 1,000 per annum.

By agreement with the Registrar-General, five-sevenths of the Deaths occurring in the Devon and Exeter Hospital are deducted from our Death-rate.

Death Rate The Death-rate for England and Wales is given for the year 1898 as 17·6. The Death-rate for the 33 Great Towns is 19·0. The Death-rate for the 67 Large Towns (in which Exeter is included) is 17·2. The Death-rate in England and Wales less the 100 Towns is 16·7. The Death-rate in Exeter is the lowest I have any record of, being only 15·66. This is 1·04 per 1,000 below that of rural England, and 1·54 below that of the 67 Towns (with which we are classed) and 3·35 below that of the 33 Great Towns.

Deaths under 1 year, 137. The Death-rate in Exeter for Infants under one year is 158·5 per 1,000 Births. The Death-rate of Infants under one year in England and Wales was 161 per 1,000 Births.

The Death-rate also for Infants was in the 33 Great Towns 178 per 1,000 Births, and in the 67 Towns (in which Exeter is included) 173 per 1,000 Births.

The Infant Mortality in Exeter is therefore 14·5 per 1,000 ^{Infantile Mortality.}
Births below that of the 67 Towns.

The Death-rate of persons in Exeter over 60 years was 63·3 ^{Deaths over 60, 237.}
per 1,000 at that group of ages.

Deaths in Public Institutions :—

In Devon and Exeter Hospital...	... 73
In City Workhouse ...	... 28
	101

The Death-rate for the last 10 years, in both Exeter and the 33 Great Towns, was :—

The following Table will show the comparative Rates for each Month or Year :—

CITY OF EXETER.

Month.	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Death Rate Statistics.
Jan.	24·	26·6	28·3	36·1	22·3	31·3	24·35	19·2	26·5	21·70	
Feb.	26·4	27·7	16·3	25·5	17·2	30·1	27·9	29·6	21·39	23·18	
Mar.	22·6	25·7	23·8	18·8	20·7	22·7	28·39	13·71	23·6	17·46	
April	22·9	24·1	27·3	14·3	21·3	20·7	18·92	17·2	21·76	17·55	
May	15·55	17·69	23·7	17·2	13·68	15·0	15·1	14·84	11·33	12·72	
June	9·45	14·2	22·5	10·4	12·53	14·7	10·39	19·63	15·0	8·89	
July	15·76	11·	18·7	16·2	15·0	18·66	14·7	15·4	15·65	9·39	
Aug.	15·7	12·4	14·4	13·6	15·5	13·8	15·47	13·94	24·	17·64	
Sept.	19·3	15·66	17·1	23·	14·89	15·3	13·1	14·5	10·87	15·29	
Oet.	19·4	15·3	+31·6	17·	13·9	18·6	16·6	14·5	15·36	14·89	
Nov.	16·7	16·6	+27·3	13·76	18·63	21·2	15·08	17·1	13·81	12·	
Dec.	24·4	27·3	25·3	17·4	36·1	25·5	11·65	18·47	20·76	17·50	
Total	232·16	235·25	276·3	223·26	221·73	247·56	212·15	205·40	220·03	188·20	

+ Epidemic of Measles.

The Death-Rate per 1000 for each year being :—

19·3 19·6 23· 18·6 18·47 20·68 17·47 17·2 18·32 15·66

IN THE 33 GREAT TOWNS.

Death Rate Statistics.	Month	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
	Jan.	23.1	25.46	26.3	33.1	25.50	23.8	19.82	19.2	19.7	20.32
	Feb.	19.7	24.7	21.3	23.4	19.7	19.4	27.47	19.8	19.6	20.30
	Mar.	20.5	23.3	22.2	22.6	20.5	19.85	29.57	19.6	18.5	20.95
	April	19.1	20.37	23.7	21.8	20.7	18.85	20.2	19.04	18.3	19.54
	May	17.8	19.2	30.5	19.7	18.5	17.5	17.4	18.15	16.85	16.72
	June	17	17.5	23.9	17.6	20.06	16.2	15.95	17.17	16.1	15.86
	July	17.8	17.6	17.8	17.5	24.07	16.4	20.45	21.66	17.72	15.55
	Aug.	18.5	20.3	18.5	17.9	21.5	16.85	20.08	19.1	27.42	21.03
	Sept.	16.9	19.17	17.7	18.2	19.87	15.75	20	15.67	18.5	23.68
	Oct.	17.8	20.5	18.3	18.15	18.3	17.05	20.22	17.2	16.9	19.05
	Nov.	18.2	20.5	20.3	19.15	23.68	17.3	19.5	20.5	18.9	17.10
	Dec.	22.5	23.9	21.1	20.68	25.6	19.0	18.35	19.16	20.76	18.08
	Total	232.1	252.8	261.6	249.78	258.63	217.75	258.81	226.25	229.27	225.98

The Death-Rate per 1,000 for each year being :—

19.3 21. 21.8 20.81 21.55 18.11 20.7 18.9 19.1 18.83

The Deaths in Exeter due to the Notifiable Zymotic Diseases, were :—

Notifiable Zymotic Deaths.

Small Pox.	Diphtheria.	Membranous Croup.	Scarlet Fever	Typhoid *Fever.	Puerperal	Erysipelas.	Total.
0	6	2	0	9	3	2	22

* Three Typhoid Deaths, notified in Exeter, which occurred in the Sanatorium, one from the County of Devon, which occurred in the Devon and Exeter Hospital, are included in the above.

The Deaths from Non-Notifiable Diseases were :—

Non-Notifiable Zymotic Deaths.

Measles.	Whooping Cough.	Diarrhoea.	Total.
1	9	13	23

Giving the low Death-rate for Notifiable Zymotic Diseases of 0.58 per 1000, and the Non-Notifiable Diseases of 0.6 per 1000.

The Death-rate for the Zymotic Diseases (Notifiable and Non-Notifiable) in all England for 1898 was 2·22 per 1,000, whilst that of Exeter was 1.18 per 1,000.

The following Table shows the Annual Death-rate per 1,000 for all causes and from the several Zymotic Diseases during the year 1898 :—

Annual Death-rate per 1,000 from all causes and from the several Zymotic Diseases during the year 1898 :

		All Causes.	Principal Zymotic Diseases	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough	Fever.	Diarrhoea.	Annual Death Rate.
England and Wales ..	17·6	2·22	0·01	0·41	0·11	0·24	0·31	0·18	0·96	161	
33 Great Towns ..	19·0	2·85	0·00	0·56	0·14	0·31	0·42	0·20	1·22	17 8	
67 Other large Towns ..	17·2	2·41	0·05	0·41	0·10	0·28	0·27	0·21	1·09	173	
England & Wales less } the 100 Towns }	16·70	1·75	0·00	0·31	0·09	0·18	0·25	0·17	0·75	145	
Exeter	15·66	1·18	0·00	0·002	0·00	0·01	0·02	0·03	0·03	158	
											Deaths under 1 year per 1,000 Births.

DISEASE INCIDENTS.

NOTIFIABLE DISEASES.

CHOLERA.

Cholera No case has occurred.

SMALL-POX.

Small Pox No case has occurred.

DIPHTHERIA.

Diphtheria Twelve cases were notified with Six deaths.

In only four cases notified was the sputum examined bacteriologically at the Jenner Institute of Preventive Medicine. In two cases the bacillus diphtheria was found, and in two it was not. Although in some cases the bacillus was not found, I believe clinically that almost, if not all, these cases were true diphtheria.

Table showing cases of Diphtheria Notified (corrected) and mortality for same for past Seven years :—

Year.	1891	1892	1893	1894	1895	1896	1897	1898	Total.
Cases Notified	12	17	14	21	22	16	11	12	125
Deaths	3	3	4	17	1	3	2	6	39

MEMBRANOUS CROUP.

Mem-
branous
Croup

Four Cases were notified, with two deaths.

SCARLET FEVER.

There were only 25 cases (with 1 double notification) leaving Scarlet Fever actual cases notified as 24 with no death. The number of these cases is still very low.

The number of cases of scarlet fever removed to the Sanatorium was 14 with no death. The number of cases notified in Exeter and not removed was 10, with no death. Total 24.

Table showing number of Cases of Scarlet Fever notified (corrected) and Mortality for the same for the past Eight Years :—

Year.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Total.
Cases Notified	173	340	769	225	86	63	14	24	1694
Deaths	1	4	5	7	3	0	0	0	20

TYPHOID FEVER.

The number of cases notified from this disease was one less than that of last year; but there was a very marked decrease in the number of deaths.

Typhoid
Fever

Ninety-six cases were notified in 1897, with fifteen deaths, whilst in 1898 ninety-five cases were notified, with nine deaths, giving a Death-rate per 1,000 cases of, in 1897, 15·62, and 1898, 9·65. Two cases were notified twice (corrected number of cases) ninety-three.

Of the cases notified, 46 were sent to the Sanatorium, and 6 were sent to the Devon and Exeter Hospital. No case was sent by us to the Devon and Exeter Hospital after March.

Most careful investigation and enquiries were made in all cases reported of this disease, and milk, food, and water supplies thoroughly investigated, and where any defect was found immediate steps were taken to compel its removal. In one instance at least it was clearly proved that the outbreak was caused by the milk supply.

Table showing number of cases of Typhoid Fever Notified (corrected) and Mortality for the same for the past Eight Years:—

Year.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Total.
Cases Notified	48	47	57	56	38	74	96	93	509
Deaths	4	1	7	8	8	13	15	9	75

CONTINUED FEVER.

Nine cases notified, with no death.

Table showing number of cases of Continued Fever Notified (correctly) for and the Mortality for the last Eight Years.

Year.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Total.
Cases Notified	0	8	3	3	3	2	10	9	38
Deaths	0	0	0	0	0	6	0	0	0

TYPHUS FEVER.

No case of this disease has been notified.

Typhus
Fever

PUERPERAL FEVER.

Five cases notified, with three deaths.

Puerperal
Fever

ERYSIPelas.

Seventeen notified, with two deaths.

Erysipelas

Non-Notifiable Diseases.

MEASLES.

From there only being one death from this disease we can Measles
safely say it has not been epidemic in Exeter.

WHOOPING COUGH.

This disease has also been much less prevalent, only nine deaths Whooping
Cough occurring.

DIARRHœA.

Although we had a very hot dry summer there were very few Diarrhœa
cases of this disease, and the deaths were almost entirely amongst
Infants. The deaths in 1898 were 13.

INFECTIOUS DISEASES.

The details of Infectious Diseases notified during the year Infectious
(corrected) are set out in Tables I. and II., and the weekly
notifications during the year (also corrected) are shown in Chart 1.

The weekly mortality from these diseases is shewn in Chart II.,
and the localities in which fatal cases have occurred are indicated
on the accompanying Map of the City.

SANATORIUM OR FEVER HOSPITAL.

Report on Sanatorium for 1898.

Gentlemen,

We have to report that the number of cases treated this year is 12 above that of 1897; *vide* following figures:—

1894—Total treated at Sanatorium	...	...	230
1895—Ditto	Ditto	...	91
1896—Ditto	Ditto	...	132
1897—Ditto	Ditto	...	94
1898—Ditto	Ditto	...	106

The number of cases from the County of Devon is slightly less than last year, but in advance of any other, as the figures show:—

Cases from the County of Devon (1894)	...	...	6
Ditto ditto ditto (1895)	...	...	20
Ditto ditto ditto (1896)	...	...	32
Ditto ditto ditto (1897)	...	...	40
Ditto ditto ditto (1898)	...	...	35

No death occurred amongst the patients from the County of Devon in the year 1898, though some of them were very ill on admission.

Cases treated from the County and City of Exeter	...	71
Cases treated from the County of Devon	...	35
		106

The average duration of each Patient's stay in the Sanatorium was 44·19 days, against 47·63 in 1897.

The three deaths were all from typhoid fever. 3 deaths in 72 cases of typhoid fever.

Giving the very low Death-rate of 2·77 per 100 of cases treated during the year.

DIPHTHERIA.—Four cases were under treatment during the year, in each case immediately on admission the Sputum was sent to the Jenner Institute of Preventive Medicine for Bacteriological Examination, and no case was discharged until the Sputum was again sent to the Institute and reported free from the Diphtheria Baccili. Sanatorium Report

The cases of Zymotic Disease notified in Exeter were 167, of which 3 were notified twice, leaving the actual numbers of cases as 164 (against 160 in 1897), of which 60 were sent to the Sanatorium and 3 to the Devon and Exeter Hospital.

Schedules are appended.

We are, Gentlemen,

Faithfully yours,

JOHN WOODMAN,

EDWARD A. BRASH,

GEORGE T. CLAPP,

JOHN MACKEITH.

16 Medical Officer of Health's Annual Report;

Sanatorium Report

Summary of Cases treated at the Exeter Sanatorium for the year 1898:—

Disease Treated.	Remain-ing 1st Jan., 1898	Admitted during 1898	Dis-charged Cured.	Deaths.	Total Treated during 1898	Remain-ing 1st Jan., 1899
Typhoid Fever	12	60	66	3	72	3
Scarlet Fever	2	28	21	—	30	9
Small Pox	—	—	—	—	—	—
Diphtheria	3	1	4	—	4	—
Measles	—	—	—	—	—	—
Total	17	89	91	3	106	12

Summary of Cases treated at the Exeter Sanatorium from the County of Devon for the year 1897, and included in the above:—

Disease Treated.	Remain-ing 1st Jan., 1898	Admitted during 1898	Dis-charged Cured	Deaths.	Total Treated during 1898	Remain-ing 1st Jan., 1899
Typhoid Fever	3	14	16	—	17	1
Scarlet Fever	1	14	13	—	15	2
Small Pox	—	—	—	—	—	—
Diphtheria	2	1	3	—	3	—
Measles	—	—	—	—	—	—
Total	6	29	32	—	35	3

Schedule of Cases treated at the Exeter Sanatorium for the year 1898:—

Sanatorium Report

DATE.	Cases admitted.				Discharged Cured.				Deaths.				Remaining on the last of each Month.			
	Typhoid Fever.	Scarlet Fever.	Small Pox.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Small Pox.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Small Pox.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Small Pox.	Diphtheria.
Remaining on Jan. 1st, 1898.	12	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...
January	2	1	...	...	11	1	...	3	1	...	...	...	2	2	...	...
February	1	1	...	...	2	1	...	...	...	...	...	...	1	2	...	...
March	2	...	...	...	2	...	...	...	...	...	...	...	3	...	...	...
April	9	...	...	...	1	...	...	...	...	...	...	...	11	...	...	...
May	3	5	...	...	9	...	...	...	...	...	...	...	5	5	...	...
June	8	...	...	...	3	1	...	...	...	...	...	...	10	4	...	...
July	6	1	...	...	7	4	...	...	1	...	...	...	8	1	...	...
August	7	4	...	...	5	...	...	...	...	...	...	...	10	5	...	...
September	6	2	1	...	7	2	...	...	...	...	...	...	9	5	1	...
October	9	4	...	...	4	4	...	...	1	...	...	...	13	5	...	1
November	5	3	...	...	8	2	1	...	...	...	...	...	10	6	...	...
December	2	7	...	...	9	4	...	...	...	...	...	...	3	9	...	...
Total	72	30	...	4	66	21	...	4	3	...	...	...	...	...	...	...

Average time of Patient's treatment 44.19 days.

Schedule of Cases treated at the Devon and Exeter Hospital for the year 1898 :—

Month.	Cases Admitted.	Discharged Cured.	Deaths.	Remaining on last of each month
	Typhoid.	Typhoid.	Typhoid.	Typhoid.
Remaining 1st January, 1898	..	3	—	—
January	—	3	—
February	2	—	2
March	1	—	3
April	—	2	1
May	—	1	—
Total	6	6	6

There were no Cases sent to the Hospital by the Health Department after March, 1898.

Average time of Patients' treatment, 68·2 days.

Summary of Cases treated at the Devon and Exeter Hospital for the year 1898 :—

Disease Treated.	Remain-ing on 1st January, 1898	Admitted during year 1898	Dis-charged Cured.	Deaths.	Total Treated during year 1898	Remain- under treat-ment 1st Jan. 1899
Typhoid Fever	.. 3	3	6	—	6	—
Total	.. ..	3	3	6	6	—

SUMMARY OF ACTION TAKEN TO LIMIT THE SPREAD OF INFECTIOUS DISEASES.

In every case notified the premises were promptly visited by *Summary*. the Sanitary Inspector. In all cases where proper isolation could not be provided the Patients were *at once* removed to the Sanatorium, every assistance given, and disinfectants supplied in all cases of need. Precautionary notices were issued, and notices of houses infected, at once sent to the Schools and the Librarian at the Free Library, and also to the Clerk of the School Board. Besides this, all rooms and clothes have been thoroughly disinfected under the superintendence of the Sanitary Inspector.

During the past year 103 rooms were fumigated after cases of infectious disease, and 3,985 articles of clothing and bedding disinfected. The Table immediately following shows an account in detail of the work:—

Sanatorium
Report.

LIST OF ARTICLES DISINFECTED

BY

Superheated Steam in the "Washington Lyon,"

DURING THE YEAR 1898.

Mattresses	...	...	346
Palliasses	...	...	414
Blankets	...	...	408
Quilts	...	...	103
Rugs	...	...	112
Suits	...	...	152
Bolsters	...	...	148
Bed-ties	...	...	168
Carpets	...	...	122
Dresses	...	...	135
Dressing Gowns	...	...	84
Cushions	...	...	133
Curtains	...	...	130
Underlinen	...	...	158
Coats	...	...	121
Other Articles	...	...	1,251
Total for 1898	...	...	3,985
Rooms Disinfected	...	...	103 *

SEWAGE.

Since my last Report, the question of Sewage disposal has ^{Sewage} been much before the public, and the Biological Treatment of Sewage so much advanced that the Government have appointed a Royal Commission under the Presidency of the Earl of Iddesleigh, to report upon the whole question of Sewage disposal. Some members of this Committee visited the Septic Works at Exeter, on 29th Sept., 1898, and every facility was given them to investigate the method of treatment so ably designed by the City Surveyor, D. Cameron, Esq.

The Local Government Board in November last, after fully considering the scheme and method of treatment so ably laid before their Inspectors by the Town Clerk, granted the loan asked for, and the works will be commenced at once.

Under this Scheme the whole of the Sewage of the City will be taken by an intercepting Sewer to the Septic Works at Belle Isle, where it will be treated by this now well-known method.

When this Scheme is completed, the whole of the Sewage of the City will be intercepted and taken to the Works for treatment before being discharged into the river below Exeter.

WATER SUPPLY.

The Water Supply for the City is drawn from the River Exe at Stoke Railway Bridge, 400 yards above the junction of the River Culm. Before entering the conduit which conveys it to Pynes Pumping Station, it is filtered through a bed of gravel on the bank of the river. From the pumping station at Pynes the water is raised to two reservoirs at Dane's Castle, and from which it flows to a pair of filtering beds, and from the filtering beds to a clear water well ; from this well the supply to the low service flows by gravitation, and that of the high is pumped from it.

The water is periodically examined by the Public Analyst both chemically and bacteriologically. The particulars of such examinations are appended.

On the 15th day of November last, a Local Government Board Inquiry was held on the application of the Council, for leave to borrow for an extension of the works, these extensions to include six new filtering beds at Pynes, increased steam and hydraulic power, two new rising mains, and an intermediate reservoir at Pennsylvania at such an height as to cause saving the expense of pumping on the high service of about £200 a year, and a great decrease of the pressure on the fittings throughout the district.

The new Works will be capable of supplying the City with over three million gallons of water per day, the whole of which will be filtered before being pumped to the City.

ANALYST'S REPORT.

Analysis of City Water.

Chemical Laboratory

The Close, Exeter,

March 31st, 1898.

To the Council of Exeter.

Report on the Analysis of the City Water, drawn March 16th, 1898.

Gentlemen,

The Water is in good condition; this is shewn by the low proportion of Albumenoid Ammonia as well as in the decreased amount of Oxygen consumed by the Organic matter. Its colour is excellent, being nearly free from the brownish tint it usually exhibits.

I am, Gentlemen,

Your obedient Servant,

FRANK P. PERKINS,

Public Analyst.

Public Analyst's Laboratory,

The Close, Exeter,

March 31st, 1898.

To the Council of Exeter.

Results of the Analysis of a Sample of Water.

Description—Exeter Supply drawn from Laboratory tap on the Main, March 16th, 1898.

Colour, viewed through 2 ft. tube...almost colourless

Smell, when heated to 212° F ... odourless

	Parts per 100,000
Alkalinity	... 5·0
Free Ammonia	... none
Albumenoid Ammonia	... ·006
Total Organic Nitrogen	... ·0115
Nitrogen as Nitrates and Nitrites	... ·222
= Nitric Acid	... ·99
Oxygen consumed by Organic matter at 80° F. in four hours	... ·0623
Hardness before boiling	... 6.0
Hardness after boiling	... 5.5
Phosphoric Acid	... traces
Chlorine	... 1·4
= Common salt	... 2·3
Total solid matter in solution	... 8·0

FRANK P. PERKINS, F.I.C.,

Public Analyst, &c.

SLAUGHTER-HOUSES.

The Public Abattoir has been increasing considerably in favour with the butchers year by year, and I consider that this has arisen from the good feeling existing between the Sanitary Authorities and the trade generally. The value of the Abattoirs this year has been shown by the fact that several cases of Tuberculosis have been found out and destroyed. Nearly if not all of these were cattle imported into the County.

BAKEHOUSES.

The 61 Bakehouses in Exeter have been duly inspected, and they are kept in good condition, and the whole of the requirements of the Act of Parliament are complied with.

Bake-houses

DAIRIES, MILKSHOPS, AND COWSHEDS.

These have been carefully and regularly inspected, and samples of Milk and Butter taken for analysis, with very good results. The number of Cowsheds is six, all in the rural districts of the City of Exeter. In one, instance, however, of a Dairy drawing its supply of milk from the County of Devon, it was clearly proved to be in such an insanitary condition as to have caused a slight outbreak of Typhoid Fever. We at once communicated with the Medical Officer of the District, and the defects were immediately remedied, and a proper supply of pure water provided for the cowsheds in place of the supply from the old surface well, which was proved to be highly contaminated.

Dairies,
etc.

SALE OF FOODS AND DRUGS ACTS.

Owing to the lamented death of our late Analyst, F. P. Perkins, Esq., F.I.C., the number of samples analysed this year is only 51, against 100 samples taken in previous years. In only two cases were the samples adulterated.

The City is now fortunate in having secured the services of C. G. Moor, Esq., M.A., F.I.C., &c., and late Assistant Professor of King's College, London, as Public Analyst, and during the coming year this useful Act of Parliament will, I am sure, be carried out in the same regular and systematic manner it has been in previous years, under his able supervision.

Abstract of Samples taken for Analysis for the year 1898.

	Milk.	Butter.	Coffee.	Pepper	Brandy.	Gin.	Whiskey.	Total.
Examined	22	13	4	4	4	2	2	51
Adulterated	2	1	9	0	0	0	0	3

AMOUNT OF ADULTERATION, PROCEEDINGS TAKEN AND FINES.

No. of Sample	Article Adulterated.	Amount of Adulteration.	Proceedings Taken.	Result of Proceedings.	Magis- terial Proceedings
11	Milk ..	2 p.c. added water ..	None ..	..
19	Milk ..	14 p.c. , , , ..	None ..	..
43	Butter ..	Excessive quantity of water }	None ..	..

MAGISTERIAL PROCEEDINGS

FOR

THE YEAR 1898.

Magis-
terial
Proced-
ings

I am glad to be able to report that the whole of the work of the Department was enabled to be carried out without bringing a case before the Magistrates.

METEOROLOGICAL READINGS.

I have again to thank the Committee of the Devon and Exeter Institution and their Librarian (A. F. Allinson, Esq., M.A.) for their continued courtesy in supplying the Meteorological Readings for the year.

METEOROLOGICAL READINGS FOR THE YEAR 1898.

Vital Statistics, Sanitary Work, etc.

29

MONTH.	Thermometers in Shade.		MEANS OF Thermometers in Shade.			TOTAL OF		REMARKS.
	Thermometers.		Dew Point.	Maxi- mum.	Mini- mum.	Rain in inches.	Number of Wet Days.	
	Highest Reading.	Lowest Reading.	Dry Bulb.	Wet Bulb.				
January ..	30.311	56.0	32.0	45.0	43.6	42.0	49.6	41.9
February ..	30.066	59.0	28.5	45.4	43.2	40.9	48.9	37.2
March ..	29.923	60.0	29.0	43.5	40.7	38.4	45.8	34.9
April ..	29.920	62.0	32.0	51.1	47.5	43.8	56.8	41.6
May ..	29.868	71.0	41.0	54.5	50.8	46.9	60.4	47.2
June ..	30.025	77.5	43.0	61.0	56.9	52.2	68.2	51.1
July ..	30.133	79.0	47.0	66.6	61.5	57.9	72.0	53.6
August ..	30.089	80.0	49.0	64.9	62.1	59.6	69.7	56.7
September ..	30.128	77.5	43.0	63.8	60.5	57.3	69.1	52.1
October ..	29.820	64.0	30.0	54.3	53.2	52.1	59.2	49.3
November ..	29.828	58.0	30.0	48.4	47.2	45.9	51.5	42.6
December ..	30.089	55.0	32.5	49.0	47.7	46.4	48.7	41.6
								2.54
								18

Giving a total rainfall for 1898 of 26.75 inches and the total number of wet days 161. *A Fall of .01 inches constitutes a wet day.

Table shewing the Rain fall in Exeter for 10 previous years and number of wet days.

Rain fall in Exeter	Year.	Gross Rainfall.	No. of Wet Days	
	1889	23·48	137	Average rain for the previous ten years, 28·96 inches.
	1890	28·48	141	
	1891	36·98	150	
	1892	23·24	114	Average number of wet days in the previous ten years, 156·8.
	1893	24·43	139	
	1894	36·73	213	
	1895	32·62	173	
	1896	22·63	153	
	1897	34·14	187	
	1898	26·75	161	

The rainfall for 1898 is 2·21 below the average for the previous ten years, and the number of wet days 4·2 below the average for the same number of years.

TABLE I.

Return of the number of Cases of Infectious Diseases reported to the Medical Officer of Health during the year 1898, and Deaths from the Disease notified.

Disease		Cases Notified during year 1898	Deaths Regis- tered during Year 1898	Deaths from Infectious Diseases
Small Pox	—	—
Cholera	—	—
Diphtheria	12	6
Membranous Croup		..	4	2
Erysipelas*	17	2
Scarlet Fever	25	—
Typhoid Fever	95	9
Typhus	--	—
Puerperal	5	3
Continued	9	—
Total	167	22

3 Deaths from Typhoid occurred at the Sanatorium, Pinhoe.

2 cases of Typhoid Fever, 1 of Scarlet Fever, included in the above Table, were notified twice.

TABLE II.

Corrected Monthly Returns of the Number of Cases of Infectious
Disease occurring during the Year 1898:—

Month.		DISEASE NOTIFIED									
		Small Pox.	Cholera.	Diphtheria.	Memb. Croup.	Erysipelas.	Scarlet Fever.	Typhoid ,	Puerperal ,	Typhus ,	Continued ,
January	..	—	—	—	—	3	2	5	—	—	—
February	..	—	—	2	—	—	2	4	—	—	—
March	..	—	—	4	—	2	—	9	—	—	—
April	..	—	—	1	—	—	—	12	—	—	1
May	..	—	—	1	1	—	—	8	—	—	2
June	..	—	—	—	1	2	1	11	—	—	—
July	.	—	—	—	—	3	1	5	—	—	—
August	..	—	—	1	1	—	2	5	—	—	2
September	..	—	—	—	—	—	2	12	—	—	—
October	..	—	—	2	—	1	5	8	—	—	—
November	..	—	—	—	1	3	2	8	—	—	—
December	..	—	—	1	—	2	7	6	—	—	2
Total	..	—	—	12	4	17	24	93	5	—	9

TABLE III.

Shewing the Number of Deaths from all Causes.

					No. of Deaths.
I.—SPECIFIC FEBRILE, OR ZYMIC DISEASES—					
1. Miasmatic Diseases	..	..	..	..	22
2. Diarrhoeal ,,	..	..	..	..	14
3. Malarial ,,	..	..	..	..	—
4. Zoogenous ,,	..	..	..	..	—
5. Venereal ,,	..	..	..	..	3
6. Septic ,,	..	..	..	..	7
II.—PARASITIC DISEASES	..	..	..	..	—
III.—DIETIC DISEASES	..	..	..	..	2
IV.—CONSTITUTIONAL DISEASES	..	..	..	..	128
V.—DEVELOPMENTAL DISEASES	..	..	..	..	94
VI.—LOCAL DISEASES	..	..	..	..	—
1. Diseases of Nervous System	..	..	..	..	74
2. Diseases of Organs of Special Sense	..	..	..	..	1
3. Diseases of Circulatory System	..	..	..	..	75
4. Diseases of Respiratory System	..	..	..	..	113
5. Diseases of Digestive System	..	..	..	..	53
6. Diseases of Lymphatic System	..	..	..	..	—
7. Diseases of Gland-like Organs of Uncertain Use	..	..	..	..	—
8. Diseases of Urinary System	..	..	..	..	18
9. Diseases of Reproductive System	..	..	..	..	—
(a.) Diseases of Organs of Generation	..	..	..	..	2
(b.) Diseases of Parturition	..	..	..	..	2
10. Diseases of Bones and Joints	..	..	..	..	7
11. Diseases of Integumentary System	..	..	..	..	2
VII.—VIOLENCE.					
1. Accident or Negligence	..	..	..	..	12
2. Homicide	..	..	..	..	—
3. Suicide	..	..	..	..	1
4. Execution	..	..	..	..	—
VIII.—ILL-DEFINED AND NOT SPECIFIED CAUSES	..	..	..	..	17
Total	..	..	..	..	647

TABLE IV.

Showing Ages of Deaths Registered from all Causes during the
Year 1898.

		AGES.											Totals	55 to 60
		0	1	5	15	25	35	45	55	65	75	85 upwards		
		to	to	to	to	to	to	to	to	to	to	85 upwards		
		1	5	15	25	35	45	55	65	75	89	85 upwards		
I.—Specific Febrile, or Zymotic Diseases	..	19	12	2	6	2	2		2				46	1
II.—Parasitic Diseases	..													
III.—Dietic Diseases	..							2					2	
IV.—Constitutional Diseases	..	10	9	8	14	17	14	14	13	13	4		128	12
V.—Developmental Diseases	..	36									7	33	18	94
VI.—Local Diseases	..	67	28	7	9	12	22	33	24	76	38	6	347	25
VII.—Deaths from Violence	..	1	2	1	1	1	2	2		1	2		13	
VIII.—Deaths from Ill-Defined and not Specified Causes	..	6	2		1		4	1	2	1			17	
Totals	..	139	53	18	31	32	46	50	41	98	77	24	647	38

TABLE V.

Showing the Deaths registered from all causes during the Year 1898.

TABLE V.—*Continued.*

	AGES.											Totals. 55 to 60
	0	1	5	15	25	35	45	60	65	75	Upwards	
	to	to	to	to	to	to	to	to	to	to	to	
	1	5	15	25	35	45	55	65	75	85	95	
III.—DIETIC DISEASES.												
Want of Breast Milk, Starvation ..	..	..	..	..	..	..	..	..	..	..	..	..
Scurvy ..	..	..	..	..	..	..	..	..	..	..	..	..
Chronic Alcoholism ..	..	..	..	..	..	..	2	..	..	..	2	..
Delirium Tremens ..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	2
IV.—CONSTITUTIONAL DISEASES												
Rheumatic Fever, Rheumatism of the Heart ..	..	..	..	..	..	..	..	..	2	..	..	..
Rheumatism ..	..	..	..	..	..	..	1	..	..	1	..	2
Gout ..	..	..	..	..	..	..	..	..	1	1	..	2
Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..
Cancer, Malignant Disease ..	..	..	..	..	..	2	10	5	6	8	..	31
Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	6
Tubercular Meningitis, Hydrocephalus ..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis ..	..	..	..	..	..	..	..	..	..	..	..	..
Other forms of Tuberculosis, Scrofula ..	..	..	..	..	..	..	..	..	..	..	..	..
Purpura, Hæmorrhagic Diathesis ..	..	..	..	..	..	..	..	..	..	..	..	..
Anæmia, Chlorosis, Leucocythaemia ..	..	..	..	..	..	..	1	1	..	1	..	3
Glycosuria, Diabetes Mellitus ..	..	..	..	..	..	..	..	..	3	..	..	..
Other Constitutional Diseases ..	..	..	..	..	..	..	..	..	1	..	..	1
	10	9	8	14	17	14	14	13	13	4	..	128
V.—DEVELOPMENTAL DISEASES												12
Premature Birth ..	..	..	..	..	..	..	..	..	..	..	..	12
Atelectasis ..	..	..	..	..	..	..	..	..	..	..	..	23
Congenital Malformations ..	..	..	..	..	..	..	..	..	..	..	..	1
Old Age ..	..	..	..	..	..	..	..	..	7	33	18	58
	36	..	..	..	..	..	..	..	7	33	18	94
VI.—LOCAL DISEASES.												
1.—Diseases of Nervous System.												
Inflammation of Brain or Membranes ..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy, Softening of Brain, Hemiplegia. Brain Paralysis ..	..	..	..	..	..	..	..	..	..	..	..	..
Insanity, General Paralysis of the Insane ..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy ..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions ..	..	..	..	..	..	..	..	..	..	..	..	..
Laryngismus Stridulus (Spasm of Glottis) ..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Spinal Cord, Paraplegia, Paralysis of Agitans ..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Nervous System ..	..	..	..	..	..	..	..	..	..	..	..	..
	14	5	1	1	1	4	10	8	14	12	..	74

TABLE V.—Continued.

TABLE V.—*Continued.*

	AGES.												Totals. 55 to 60
	0	1	5	15	25	35	45	60	65	75	85	Upwards	
	to	to	to	to	to	to	to	to	to	to	to		
	1	5	15	25	35	45	55	65	75	85	85		
8.— <i>Diseases of Uninary System.</i>													
Nephritis													
Bright's Disease, Albuminuria ..													
Disease of Bladder or of Prostate ..													
Other Diseases of the Uninary System													
9.— <i>Diseases of Reproductive System.</i>													
(A). Of Organs of Generation.													
Male Organs													
Female Organs													
(B). Of Parturition.													
Abortion, Miscarriage													
Puerperal Convulsions													
Placenta prævia. Flooding													
Other Accidents of Child Birth													
10.— <i>Diseases of Bones and Joints.</i>													
Caries, Necrosis													
Arthritis, Ostitis, Periostitis													
Other Diseases of Bones and Joints													
11.— <i>Diseases of Integumentary System.</i>													
Carbuncle, Phlegmon													
Other Diseases of Integumentary System													
VII—DEATHS FROM VIOLENCE.													
1.— <i>Accident or Negligence.</i>													
Fracture and Contusions							1	1	1	2	5	..	
Gunshot Wounds .. ..							..	..	..	..	..	..
Cut, Stab .. ..							..	..	..	..	..	..
Burn, Scald							2	1	1	..	4	..	
Poison .. ..							..	..	1	..	1	..	
Drowning .. ..							..	1	..	..	1	..	
Suffocation							1	..	..	..	1	..	
Otherwise .. ..							..	..	..	..	..	..
	1	2	1	1	..	2	2	2	1	2	12	..	

TABLE V.—*Continued.*

	AGES.												Totals 55 to 60
	0	1	5	15	25	35	45	55	65	75	85	upwards	
	to	to	to	to	to	to	to	to	to	to	to	8	
	1	5	15	25	35	45	55	65	75	85	up		
2.—Homicide.													
Manslaughter
Murder
3.—Suicide.													
Gunshot Wounds
Cut, Stab
Poison
Drowning
Hanging
Otherwise	1	..	..	..	..	1	..
4—Execution.													
Hanging
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.													
Dropsy
Debility, Atrophy, Inanition	6	1	..	..	..	..	..	..	..	..	7
Mortification	1	1	..	..	2
Tumour	2	1	1	..	..	..	4
Abscess	1	..	1	..	1	..	..	..	..	3
Hæmorrhage	1	..	..	..	..	..	1
Sudden Death (cause not ascertained)
Causes not Specified or Ill-defined
	6	2	..	1	..	4	1	2	1	..	..	17	..

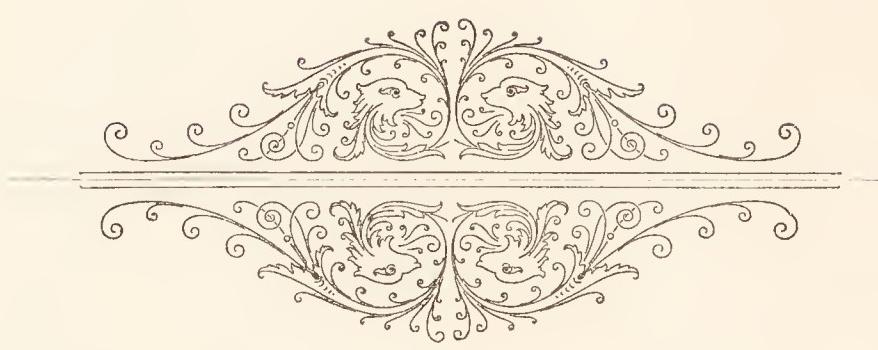


TABLE OF DEATHS DURING THE YEAR 1897, IN THE EASTERN AND WESTERN DIVISION OF THE URBAN SANITARY DISTRICT OF EXETER, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES, AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES.

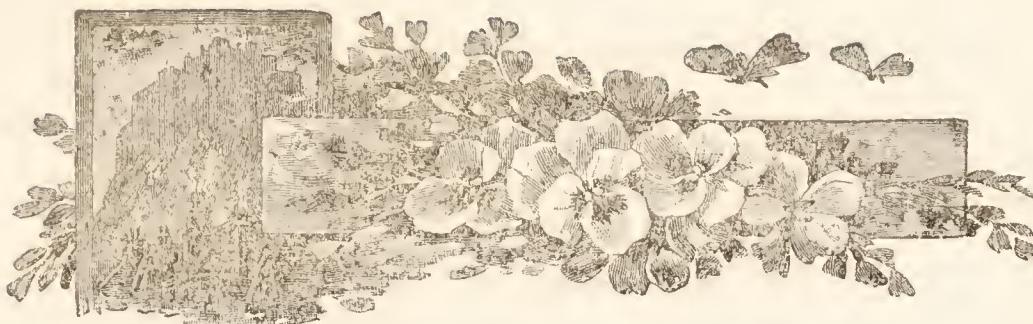
Area and Population of the District or Division to which this Return relates: Area in Acres, 649; Population (1891), 23,766.

WESTERN DIVISION.

Area and Population of the District or Division to which this Return relates : Area in Acres, 1,241 ; Population (1891), 13,802.

(B) TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH DURING THE YEAR 1898, IN THE URBAN SANITARY DISTRICT OF EXETER, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

Notification of Infectious Disease has been compulsory in the District since 1889. The name of the Isolation Hospital of the City of Exeter is the Exeter Sanatorium, situate in Whipton, in the Parish of Pinhoe, about two miles from Exeter.



SANITARY INSPECTOR'S REPORT.

I have again the honour of presenting for your consideration my Annual Report as Sanitary Inspector for the City and County of the City of Exeter.

In the past year the greater portion of the time of the Officers of the Health Department have been taken up with regular and systematic inspection of the City, and by this means much improvements have been accomplished in the courts and alleys, many of which have been dealt with in a thorough manner, the drains being re-constructed, houses cut out to allow for the admission of sufficient light, air, and sanitary conveniences, the court yards properly paved and drained, so that many of these places have ceased to be a source of trouble and worry. By inspecting the City in this way much useful work is done, and one is surprised to see the alterations that these improvements have made. Many nuisances are discovered and at once abated by this regular inspection.

Typhoid
Fever

In nearly every case of infectious disease notified, strict inquiries and inspection of the premises have been made, and many defects in the sanitary condition of the houses discovered and put right. In every case of Typhoid Fever and Scarlet Fever inquiries are made as to milk, food, water, and the sanitary condition of the premises, and in many cases causes of the disease discovered. In one particular instance of an outbreak of Typhoid Fever in a court in the lower part of the City, it was found that one milk supply was common to several cases, and upon inspecting the cowsheds, which are situated outside the City, the water supply to these sheds was found upon analysis to be highly contaminated.

Notices have again been sent to the Schoolmaster or Schoolmistress and the Clerk to the School Board in all cases where patients suffering from infectious disease were attending school, requiring that no child from the infected house be allowed to attend school until the complete recovery of the patient or the period of quarantine had elapsed; also to the Librarian of the Free Library.

Housing
Working
Classes

Much good work has been done under the Housing of Working Classes Act, and many houses which were unfit for habitation abolished. Several houses in Parsonage Court, Stepcoate Hill, have been converted into a store, and the other two houses repaired. At Turner's Cottages, Quay Lane, where the houses were in a most unsatisfactory state, they have been put in thorough repair, all of the bedrooms being increased in height, proper conveniences provided to each house, and the whole put in a good sanitary condition. At Plantation Buildings, Clifton Road, all the

houses which were in an unsanitary state have been pulled down. By the demolition of these houses we have got rid of what was in my opinion one of the worst lot of dwellings in the City.

PUBLIC ABATTOIR AND PRIVATE SLAUGHTER HOUSES.

The inspection of the Slaughter Houses within the City has been carried out in the usual manner, and in all cases the Byelaws have been complied with. During the coming year another of the Private Slaughter Houses will disappear, leaving only eight Slaughter Houses within the City.

The Public Abattoir has again been kept in a high state of efficiency, and has been more appreciated than ever. The following figures give the number of animals slaughtered in the Public Abattoir during the year 1898:—Beasts, 2,079; Calves, 1,123; Sheep, 8,392; Pigs, 1,452; Total, 13,046.

DRAIN TESTING.

The number of Drains tested during the past year has not been so many as last year—162 in 1898, against 304 in 1897. In all cases where defects were discovered notices were served on the persons responsible, and in all cases when defects have been made good or new drains laid they have been wherever possible tested with the hydraulic test.

Drainage Examinations.

UNSOUND MEAT, VEGETABLES, FOODS AND DRUGS.

The inspection of the Markets, Slaughter Houses, and Shops for the detection of unsound food has been carried out in the usual manner, and in no case during the past year has it been necessary to take legal proceedings. The value of the Public Abattoir as a means for the detection of unsound meat has been more than ever demonstrated in the past year, all the cattle which were found to be suffering from generalized Tuberculosis being seized at the Abattoir. The number of samples taken for analysis during the past year have been much below the usual number. This is accounted for by the death of the late Public Analyst. The samples taken were 51 in 1898, against 100 in 1897. All the samples have been taken by persons unknown to the seller, and some of the samples of milk have been taken while in course of delivery to the purchaser.

The results of the Analysis is shown in the Medical Officer's Report—page 27.

TABLE

SHEWING

MEAT, FISH, &c., SEIZED AS UNFIT FOOD.

<i>Reference Number.</i>	<i>Nature of Seizure</i>	<i>Date.</i>
1.	Carcass of a Bullock, Tuberculosis ...	1st February.
2.	Carcass of a Calf ...	3rd February.
3.	Carcass of a Cow, Tuberculosis ...	2nd June.
4.	Carcass of a Sheep, Tuberculosis ...	11th June.
5.	Carcass of a Cow, Tuberculosis ...	22nd November.
6.	Carcass of a Cow, Tuberculosis ...	23rd November.
7.	Carcass of a Cow, Tuberculosis ...	30th November.

BAKEHOUSES.

All the Bakehouses have been visited twice during the past year. The majority are in excellent condition, and have been kept in accordance with the requirements of the Act of Parliament. There are a few in which it is impossible to insist upon the modern requirements necessary for so important a business, but I have no doubt that before long these premises will be discontinued from their present use.

DAIRIES, COWSHEDS, AND MILKSHOPS.

The whole of the Dairies, Cowsheds, and Milkshops have been inspected to see that the Byelaws are complied with, and in two cases the water supplied to the cowsheds was examined and analysed; in one case it was found unsatisfactory, the well was closed, and the City water taken in, while in the other case the water was found to be in a satisfactory condition.

There is always a difficulty in getting the dung removed from the yard adjoining the cowsheds, and I feel that unless this evil is remedied I shall be compelled to ask the Sanitary Committee to take proceedings against the offenders.

OFFENSIVE TRADES.

Offensive Trades.

All the Offensive Trades are conducted in a fairly satisfactory manner, and are regularly inspected. This year the complaints have been more numerous than before, but upon investigation any nuisance discovered was at once abated, and the Proprietors of these businesses have always afforded me the greatest assistance in conducting inquiries into the cause of any nuisance arising from their premises.

R E P O R T

OF THE

SANITARY WORK COMPLETED IN THE YEAR 1898.

Complaints Received during the Year	-	245
Houses, Rooms and Works Inspected	-	3756
Re-inspection of Houses and Rooms	-	1408
Notices served for Sanitary Amendments of Houses and Premises	- - - -	352
Houses, Premises, &c., Cleaned, Repaired, and Limewashed	-	51
Rooms Disinfected after Illness of an Infectious Character	-	103
Drains Repaired, Cleaned, Trapped, and Ventilated	-	62
Drains Re-laid with Socketted Pipes properly Trapped Ventilated	- - - -	144
Water Closets Repaired	- - - -	98
Water Closets supplied with Water	- - - -	5
New Water Closets provided	- - - -	18
Removal of Accumulations of Dung, Stagnant Water, Animals, and other Refuse	- - - -	15
Animals removed, being improperly kept	- - - -	7
Water Closet cleansed by notice H.M. Inspector	- - - -	25
Court Yards paved in Cement Concrete	- - - -	58
Soil Pipes ventilated	- - - -	9

Defective Bell Traps re-placed by Stoneware Gullies -	37
Waste Pipes discharge into Stoneware Gullies and Trapped	9
Slaughter-houses Limewashed and cleansed twice -	9
Notices for Abatement of Overcrowding - -	5
Visits to Slaughter-houses - - -	636
Bakehouses Limewashed twice - - -	62
Visits to Bakehouses - - - -	124
Notices under the Working Classes Act - -	3
Notices Served for Drains to be Opened Up -	9
Notices Served for Proper Supply of Water for Domestic Use - - - -	1
Articles of Clothing Disinfected - - -	3985
Smoke Test Applied to Drains - - -	164
Samples Taken for Analysis - - -	51
Wells Closed - - - -	1
Inspection of Cowsheds - - -	16
Dairies and Milkshops Inspected - - -	71
Visits to Schools to see that no Scholars from Infected Houses were attending - - -	144
Notices to Managers of Schools of Infectious Sickness existing in Houses from which Scholars were attending - - - -	107
Notices to Librarian of Exeter Free Library -	78
Workshops Inspected - - - -	94

FACTORY AND WORKSHOPS ACTS, 1878, 1891, 1895.

The Workshops have been inspected, and in nearly all cases are kept in compliance with the Act. In a few cases overcrowding were discovered, and notices served for the abatement.

There has been increased watercloset accommodation provided in several Workshops.

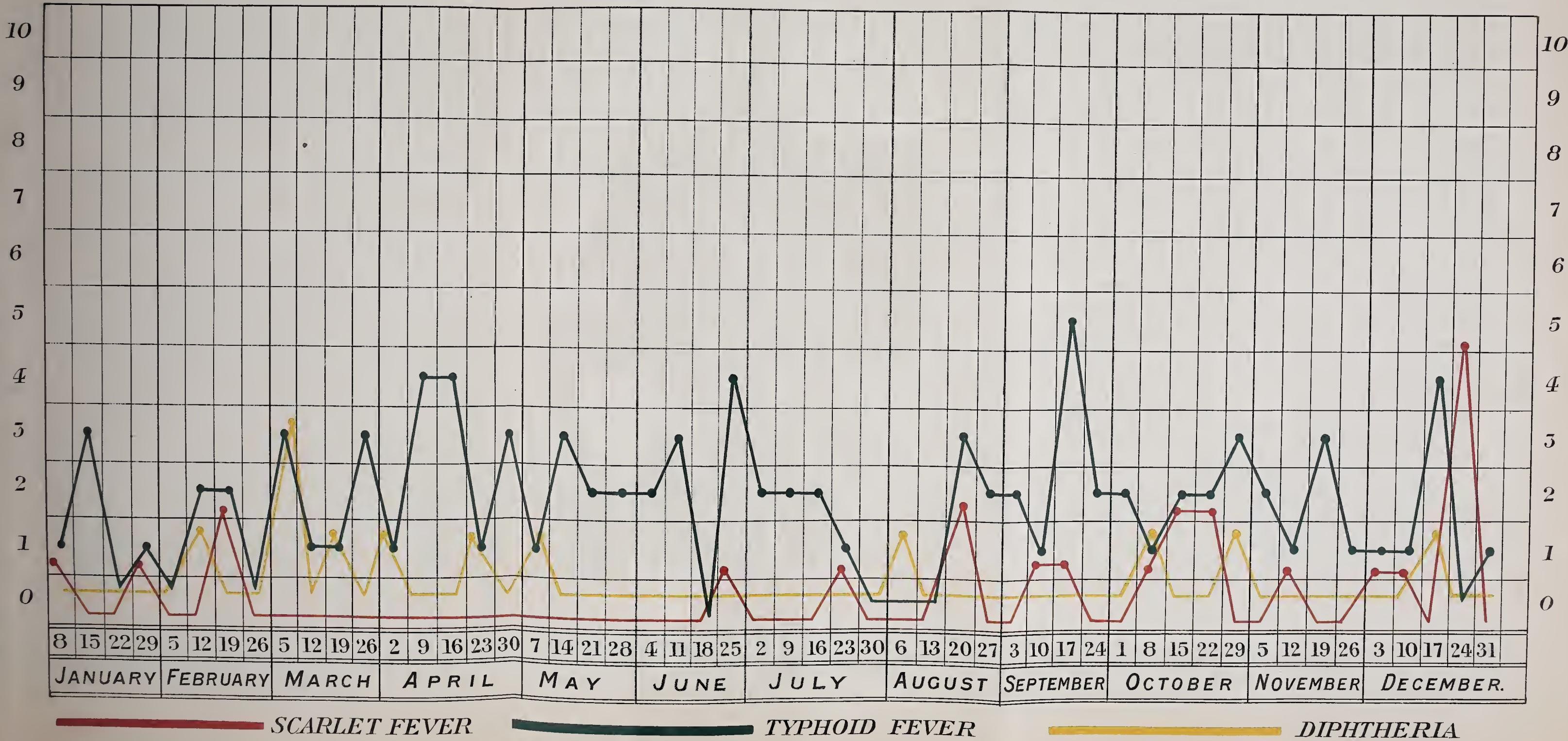
A few notices have been received from H.M. Inspector of Factories as to sanitary defects in Factories, and in all cases notices were sent for these defects to be amended, and were at once complied with.

I have the honour to be,

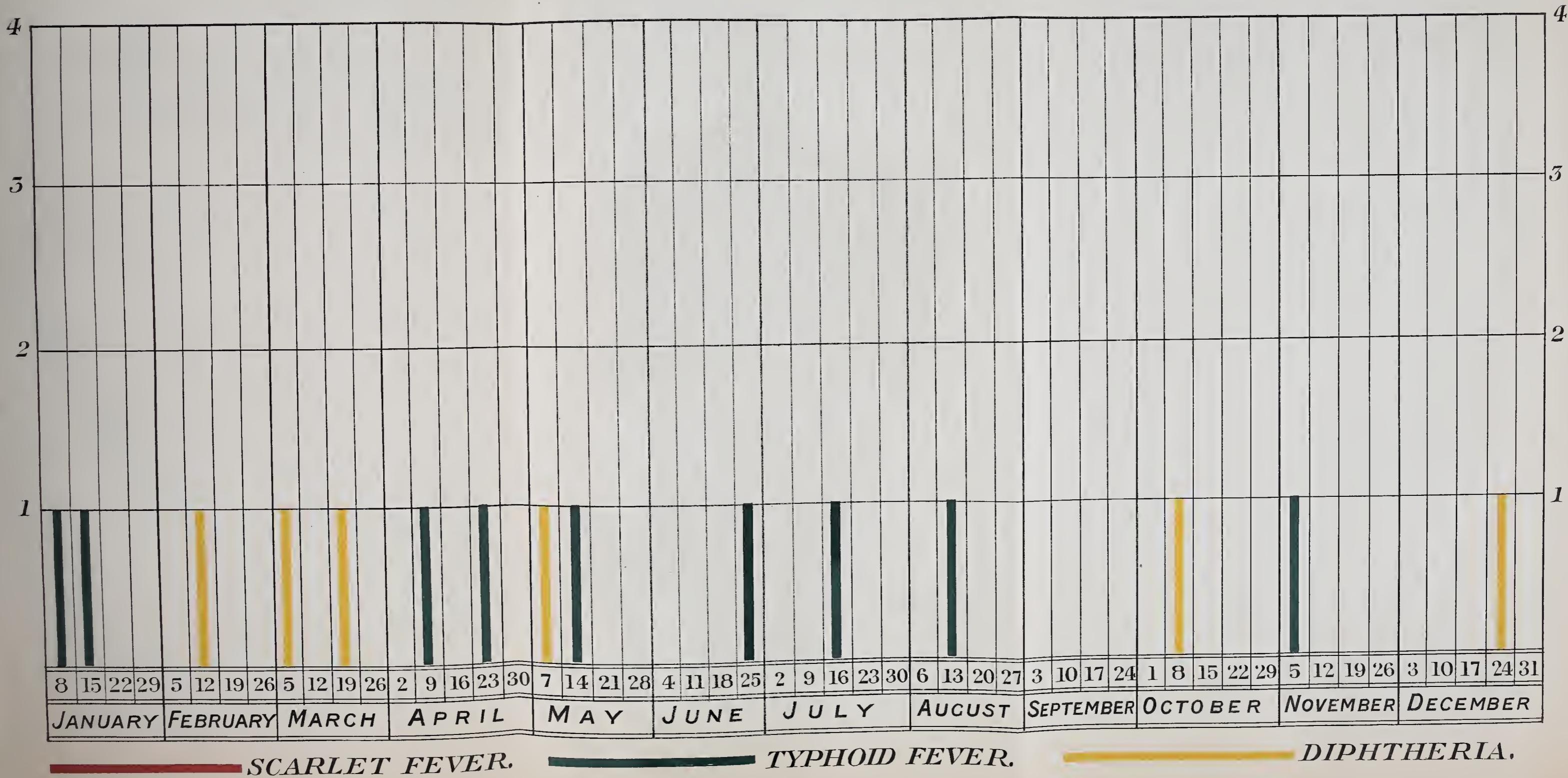
Yours obediently,

W. J. WREFORD.

*CHART I SHEWING WEEKLY NOTIFICATIONS
OF
SCARLET FEVER, TYPHOID FEVER & DIPHTHERIA.*



*CHART 2 SHEWING WEEKLY MORTALITY
FROM
SCARLET FEVER, TYPHOID FEVER & DIPHTHERIA.*



CITY & COUNTY
OF THE
City of Exeter

SHOWING LOCALITIES WHERE FATAL CASES
HAVE OCCURRED FROM PRINCIPAL ZYMIC
DISEASES DURING 1891

- Scarlet Fever ■
- Diphtheria ▲
- Typhoid Fever ✕
- Measles •



Note Western District within red boundary
Eastern " " green "

S^t
T H O M A S

Scale

0 1/4 1/2 1/4 Mile

